ER Site No. 90: Beryllium Firing Site (Thunder Range)

ADS: 1335
Operable Unit: Southwest Test Area

Primary Contact: Dick Fate
Office Phone: 284-2568

Site History

ER Site 90 is located near the southwest corner of Kirtland Air Force Base (KAFB), within the triangle formed by Magazine Road, Isleta Road, and University Ranch Road. The site occupies approximately 0.2 ac in an area called South Thunder Range. Mean elevation at the site is 5,474 ft above mean sea level. The terrain of ER Site 90 is relatively flat, with subsurface geology characteristic of the area. Site vegetation is primarily sage and tumbleweeds.

The nearest monitoring well to ER Site 90 is the Thunder Range East well, which is located approximately 0.2 miles east of ER Site 90. Well completion records indicate that the well was drilled in July 1995 to a total depth of 600 ft. Depth to groundwater was measured at 175 ft below ground surface in November of 1995.

ER Site 90 was used for quality assurance (QA) tests that were conducted on Artillery Fired Atomic Projectiles (AFAP) between 1980 and 1990 outside of Bunker 9964. The simulated AFAP weapon tested was an 8-inch round containing approximately 82 pounds (lbs) of depleted uranium (DU) and 11 lbs of beryllium. The testing program was conducted to determine if components of the weapon function within stated specifications. Approximately 10 units were tested on an annual basis. Other small explosive tests, involving similar materials, were conducted in the same area.

The AFAP test units were mounted on a test stand placed between two 30-inch square catcher boxes filled with sand bags and vermiculite. For each test a small propellant charge was fired to activate simulated warhead components and a neutron generator, thereby producing a neutron output. The explosive charge consisted of 2.8 ounces of M2 propellant powder, 4 to 5 grams of black powder, or 3 to 4 "30 ought 6" cartridges. Beryllium-containing units were broken apart, but the DU rings remained intact. The majority of test unit debris, DU, and beryllium was

captured in the catch boxes. Some pieces of steel and beryllium were found within a 100 ft radius of the test stand.

The general public is not permitted access to Thunder Range, but worker access to individual sites is not controlled.

Constituents of Concern

DU
Beryllium
HE
Lead

Current Hazards

There are no current hazards at this site related to contamination of the surface or subsurface soils.

Current Status of Work

Site characterization sampling was completed in 1995. A confirmatory sampling no further action (NFA) proposal was submitted to the New Mexico Environment Department in January 1997. In December 1999, following review of SNLs response to a Request for Supplemental Information (RSI), NMED indicated that the site was acceptable for NFA. The NFA was approved by NMED in October 2000 after completing the public review and permit modification process.

Future Work Planned

No further work is planned.

Waste Volume Estimated/Generated

No waste was generated.

Information for ER Site 90 was last updated Jan 22, 2003.